



M2300U

Bank Note Counter

User's Manual & Operating Instructions

United Kingdom

Revision 0
February 2006



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M2300U Bank Note Counter – User's Manual & Operating Instructions (M/8.0) **Copyright © 2006 Total Postweigh International Ltd.**

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Revision 0 (February 2006)

Total Postweigh International Ltd.
1 Skelgillside
Alston
Cumbria
CA9 3TR

www.postweigh.com

Tel. +44 1434 381182, Fax. +44 1434 382035

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Important Information

Please read this instruction manual carefully before the operation.

Notice

- ❑ Reliable grounding is required for the socket connected with the machine.
- ❑ The voltage of the power supply connected with the machine should be within the stipulated range.
- ❑ Please turn off the machine and pull out the plug when opening the back cover of the machine or cleaning the dust.

1 General Introduction

Thank you for choosing currency counter Model M2300U. The following specifications are for your better understanding of the machine:

- ❑ Counting speed: 600, 900, 1200, and 1500 pcs/m
- ❑ Countable paper size: 50 × 110 ~ 95 × 185 mm
- ❑ Thickness: 0.07 – 0.2 mm
- ❑ Detection of suspected notes: Half notes, double notes, chain notes, UV and magnetic suspected notes.
- ❑ Display modes: Four-digit LED count display
Three-digit LED parameter / batch display
- ❑ Preset Batch Number: Ten-digit numeric key pad
- ❑ Input Hopper Capacity: (Approx.) 200 bills, 350 bills with extension clips (Movable guides)
- ❑ Output Stacker Capacity: (Approx.) 200 bills
- ❑ Dimensions: 265 × 235 × 190 mm
- ❑ Net weight: 6.5 KGS
- ❑ Power supply: 220V / 50HZ or 110V / 60HZ (as per user's requirement)

2 Operation

2.1 Turning on the machines

Please ensure that the power supply you are using is with the same parameter as the ones on the back of the machine.

The machine will proceed automatic checkout for 2 (two) seconds. If the machine is in normal condition, the count display shows “0”. Put the bills on the input hopper, the machine will automatically start to count.

Please note:

- ❑ When the code signals are displayed during the process of turning on the machine and counting bills, please adjust them with reference to 3.1.
- ❑ With memory chips installed, the parameter setting of the machine is out of your own choice. The default configuration are:
Auto counting, ‘add’ function is disabled, auto recognition of different width, counting speed – 900 notes per minute, and the magnetic and UV detection are on.

2.2 General Operation

2.2.1 Front panel operation



❑ Batch keypad

The ten batch keys are to set the batch number the user desires. And the **CLEAR** key is to clear the batch number on the parameter/batch display.

❑ Main Function keys

UV/MG

to detect the UV or magnetic or both suspected banknote during the process of counting.

START/RESET

to withdraw from the state of parameter presetting; to clear the count display to “0”, and to start the manual counting

SPEED

to set the counting speed

ADD

to accumulate all the effective value on the count display (the machine is within the adding mode when the indicator light above is on).

MANUAL

to switch ON and OFF the manual counting function. (The machine is within the manual counting mode when the indicator light above is on).

- ❑ Auxiliary function keys

Press “7” on the batch keypad for four times to enter the auxiliary function setting:

- | | |
|---|--|
| 1 | to adjust the sensitivity of UV detection. |
| 2 | to adjust the sensitivity of magnetic detection. |
| 3 | to set the sensitivity of paper width |
| 4 | to adjust the sensitivity of paper density |

2.2.2 How to position the feeding chink adjusting knob with a coin

- ❑ Turn the coin clockwise (to “+”) to enlarge the feeding chink, counter-clockwise (to “-“) to decrease the feeding chink
- ❑ When the bills can not be counted smoothly, enlarge the feeding chink (to “+”); when the machine stops with signals like “db”, “CH” displayed, decrease the feeding chink (to “-“).

Please note: don't rotate the adjusting knob to a large degree, and only the inching movement is applicable.

2.2.3 How to adjust the paper guide

- ❑ The width of the paper guide should be in accordance with that of the bills that the machine is to count
- ❑ When there's width difference between the bills, please adjust the paper guide to suit the present width of the bills, so as to avoid mis-alarm.

2.3 Setting the main functions

2.3.1 Counterfeit detection

After the self-test for two seconds, the machine proves to be in the normal condition, and both the indicator lights for UV and magnetic counterfeit detection are on.

Press the UV/MG key, the indicator light of MG is turned off, and the machine counts with UV-detection function only; Press UV/MG again, both the indicator lights of UV and MG are turned off, the machine counts without counterfeit detection.

Press the UV/MG key the 3 (third) time, both the counterfeit indicator lights are on, showing the function of counterfeit detection through UV and magnetic ink is enabled.

Please note:

- ❑ It is suggested that the first note of the bill bundle should be a 70% new bill without pollution, so as to be considered as the standard for auto-identification.
- ❑ The sensitivity of the two methods of counterfeit detection can be adjusted. For the details of operation, please refer to Section 2.4.

2.3.2 Speed adjustment

The machine gives the user 4 speed levels to choose from, including 600pcs/m, 900pcs/m, 1200pcs/m and 1500pcs/m. To choose the desired speed, press the function key **SPEED**. Generally, to make the machine works under the best condition, 900pcs/m is recommended as the default speed.

***Please note:** when counting under 1500pcs/m, the indicator light of magnetic detection is automatically off, and the machine will not conduct the magnetic detection.*

2.3.3 Accumulation of effective counting value

Press the **ADD** key, the indicator light above is on, and the count display will show the total of all the effective counting value (i.e. except for the dubious bill, which is not counted into the effective value) since the machine is turned on. And the machine will continue to count from the total value.

2.3.4 Batch presetting

The batch presetting can be achieved by directly pressing the keys on the batch keypad. When the batch number is reached, the machine will stop for the user to take out the bills and so that it can continue the batch operation.

Please note:

- ❑ Continuous batch counting is only applicable under the state of auto counting.
- ❑ The preset batch under manual counting can only do the batch counting for one time.

2.3.5 Batch number clearance

Press **CLEAR** key to clear the preset batch number on the batch/parameter. And the machine withdraws from the batching state.

2.4 Setting the auxiliary functions

Press “7777”, i.e. “7” for four times, to change the parameters of the machines, and the batch/parameter display will show “Set”:

2.4.1 Press “1” to enter the setting of UV detection

The sensitivity of UV detection is adjustable by continuously pressing the “1” key, and the sensitivity will be changed from SU1 to SU15, (the default setting is SU7). The smaller the number follows SU, the higher the sensitivity of UV detection.

2.4.2 Press “2” to enter the setting of Magnetic detection

The sensitivity of Magnetic detection is adjustable by continuously pressing the “2” key, and the sensitivity can be changed from Sd1 to Sd15 (the default setting is Sd7). The smaller the number follow Sd, the higher the sensitivity of Magnetic detection.

2.4.3 Press “3” to enter the setting of width difference of the banknotes

The sensitivity of width difference detection is adjustable by continuously pressing the “4” key, and the sensitivity will be changed from dd1, dd2, dd3, dd4, dd5, dd6 and dd7 (the default setting is dd4). When the width difference between the bills is detected to be over the set parameter, the machine alarms and stops counting.

2.4.4 Press “4” to enter the setting of banknotes density

The sensitivity of banknote density is adjustable by continuously pressing the “4” key, and the sensitivity will be changed from dE1, dE2, dEN3, dE4, dE5, dE6 and dE7 (the default setting is dEN4).

Please note:

- ❑ For the sensitivity of counterfeit detection, the smaller the number, the higher the sensitivity.
- ❑ If mis-alarm frequently occurred, please decrease the sensitivity of counterfeit detection, i.e. increase the number; if the machine

often fails to report the dubious notes, please increase the sensitivity, i.e. decrease the number.

2.5 Memory of the last setting

The currency counter has the function of automatically saving the parameters of the last setting. When each function and its parameters have been set, press the START/RESET key, and the present setting is saved. The machine will be working under the new setting after being turned on next time.

3 Error Codes and their elimination

3.1 Error codes displayed after the self-test of the machine, their meanings and their elimination

Error Code	Error Position	Elimination
FE1	Feeding Sensor	Clear the dust and turn on the machine again.
FE2	Left Counting Sensor	
FE3	Right Counting Sensor	
FE4	Stacker Sensor	
FE5	Speed Sensor	
FE6	UV Sensor	
FE7	Left Magnetic Sensor	Check the corresponding magnetic head.
FE8	Right Magnetic Sensor	
FE9	Middle Magnetic Sensor	

3.2 When the machine stops upon the detection of dubious banknote, the error codes and their elimination are as follows

Error Code	Error Position	Elimination
HF X	Half note	Take out the half note, and press START/RESET to continue the counting.
db X	Double bills	Check the notes, mis-alarm could occur if the notes are very old, press START/RESET to count the bills again.
CH X	Chain notes	Take out the banknotes on the stacker, put on the input hopper, and press START/RESET to count the bills again.
dd X	Notes of different denomination	Take out the shorter / longer note, and press START/RESET to continue the counting.
JA	Jamming	Take out the banknotes on the stacker, put on the input hopper, and press START/RESET to count the bills again.
SU X	UV suspected note	Take out and check the dubious note, and press START/RESET to continue the counting.
Sd X	Magnetic suspected note	Take out and check the dubious note, and press START/RESET to continue the counting.
SUD X	Both UV and Magnetic suspected note	Take out the counterfeit note, and press START/RESET to continue the counting.

Please note:

- ❑ The number behind the error code shows the credibility of the detection of the dubious notes. The bigger the number, the higher the credibility.
- ❑ When the machine stops and alarms when counting the first three banknotes, they should be taken out of the stacker, put back to the input hopper, and count again by pressing the START/RESET.

4 Repair and Maintenance

Give the machine everyday cleaning, and a thorough cleaning to the surface of the sensors and the parts inside every week.

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